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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,920	10/31/2001	Hideya Kawahara	SUN1P823/P5905	7758
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BEYER WEAVER & THOMAS LLP			ZHEN, LI B	
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2194

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/003,920

Applicant(s)

KAWAHARA, HIDEYA

Examiner

Li B. Zhen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/2/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1 – 39 are pending in the current application.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 09/02/2005 complies with the 37 CFR 1.98. Accordingly, the information disclosure statement was considered.

Response to Arguments

3. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1 – 9, 12, 13, 15 – 24, 27, 28, 30 – 36 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,529,962 to Azagury et al. [hereinafter Azagury, cited in previous office action] in view of U.S. Patent No. 6,704,805 to Acker et al. [hereinafter referred to as Acker].**

6. As to claim 1, Azagury teaches the invention substantially as claimed including computer implemented for controlling or monitoring a target software component [target thread supply object 42, Fig. 2; col. 6, lines 1 – 16] of an isolated execution unit [target machine 40 comprise Java Virtual Machines, Fig. 2; col. 5, lines 55 – 60], the method comprising:

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an intermediary software component within an isolated execution unit [target MRM object 44, Fig. 2; col. 6, lines 1 – 16];

starting the target software component having the indicated identifier within the isolated execution unit [method 200 is carried out by target thread supply method 142 in response to a remote call from source MRM 134. In an initial step 202, the thread supply object waits until it receives a remote request from step 154 of remote transmission method 150, whereupon the intermediate thread is generated; col. 11, lines 36 – 49]; and

establishing a communication path [call from object 36 is routed via source MRM 34 and then via target MRM 44. A remote transmission generated in machine 40 in response to the call, herein termed a callback, is routed via target MRM 44 and then via source MRM 34 back to source machine 30; col. 6, lines 17 – 27] between the intermediary software component [target MRM 44, Fig. 2; col. 6, lines 17 – 26] and an external program [object 36, Fig. 2; col. 6, lines 17 – 18] that is outside of the isolated execution unit [target machine 40 comprise Java Virtual Machines, Fig. 2; col. 5, lines 55 – 60; it is noted that the Java Virtual Machines correspond to the isolated execution unit and would be initialized before communication from source machine] whereby the external program can control or monitor the target software component via the established communication path [a first program thread running on a source machine makes a remote call to a target machine; col. 2, lines 36 – 54; col. 13, line 57 – col. 14, line 6]. Although Azagury teaches the invention substantially as claimed, Azagury does not specifically teach indicating an identifier of a target software component to the intermediary software component. However, it is clear from figure 2 that target MRM object 44 and target thread supply object 42 are in communication with each other [see the double arrow between element 44 and 42]. In order for the two objects to be able to communicate each other, the objects would need to know the identification of each other. Therefore, target MRM object 44 [intermediary software component] would obviously know the identifier of target thread supply object 42 [target software component]. Azagury teaches isolated execution unit [Java virtual machine at the target machine],

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but does not specifically teach an external program creating a new isolated execution unit and the external program is outside of the isolated execution unit

However, Acker teaches an external program creating a new isolated execution unit, wherein the external program is outside of the isolated execution unit [container may not necessarily be present in a single server location, and the EJB container could be replicated and distributed across many systems; col. 4, lines 40 – 58], starting an intermediary software component within the newly-created isolated execution unit [container 114 automatically produces home interface 116 and remote interface 118; col. 4, line 58 – col. 5, line 7], establishing a communication path between the intermediary software component and the external program [Remote interface 118 provides access, by client 120, to business methods within EJB 104. Home interface 116 identifies EJB 104 class and is utilized to create, find and remove EJB 104 instances; col. 4, line 58 – col. 5, line 9], and indicating an identifier of a target software component to the intermediary software component [Home interface 116 identifies EJB 104 class and is utilized to create, find and remove EJB 104 instances; col. 4, line 67 – col. 5, line 8].

7. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the teaching of an external program creating a new isolated execution unit, wherein the external program is outside of the isolated execution unit as taught by Acker to the invention of Azagury because this allows the target component to be enclosed within a logical container that acts as a filter and provides rules concerning transactions, state, security, etc., on all operations of the target component [col. 5, lines 1 – 7 of Acker]. In addition, this provides an interface with data sources, external to the container [col. 5, lines 1 – 7 of Acker]. Azagury and Acker are analogous art because both references teach provide an execution environment with access to a target component. Although both Azagury and Acker discloses client/server communication, examiner notes that one of ordinary skill in the art would know that a client and a server could both execute on the same computer system.

8. As to claims 2 and 3, Azagury teaches the established communication path [col. 6, lines 17 – 27] uses an inter isolation communication protocol that is a remote method invocation technique [object 236 on source platform 38 generates a remote call, and sends an invoker thread with a lock identity to a Java Remote Method Invocation process 241 comprised in source machine 30. Remote Method Invocation process 241 transfers the call and context parameters of the invoker thread, including the lock identity, to a corresponding Java Remote Method Invocation process 243 running target machine 40; col. 13, line 57 – 65].

9. As to claim 4, Azagury teaches the communication path is established by the intermediary software component [call from object 36 is routed via source MRM 34 and then via target MRM 44. A remote transmission generated in machine 40 in response to the call, herein termed a callback, is routed via target MRM 44 and then via source MRM 34 back to source machine 30; col. 6, lines 17 – 27].

10. As to claim 5, Azagury as modified teaches prior to establishing the communication path, initializing the isolated execution unit into a desired state [col. 7, line 64 – col. 8, line 10 of Acker] supplied by the external program [generates a second thread to carry out whatever method or methods are required by the call; col. 2, lines 36 – 54 and col. 5, line 64 – col. 6, line 15 of Azagury].

11. As to claim 6, Azagury as modified teaches the isolated execution unit is initialized into the desired state [col. 7, line 64 – col. 8, line 10 of Acker], supplied by the external program by the intermediary software component [objects 34 and 44 respectively utilize thread supply objects 32 and 42 in order to generate one or more threads; col. 6, lines 17 – 27 of Azagury].

12. As to claim 7, Azagury as modified teaches indicating one or more parameters [col. 7, line 64 – col. 8, line 10 of Acker] for initializing the isolated execution unit, wherein the initialization of the isolated execution unit is based on the indicated one or

more parameters [other context parameters of the thread, such as priority, and incorporates the identity and other parameters into the intermediate thread; col. 6, lines 52 – 60 of Azagury].

13. As to claim 8, Azagury teaches the external program indicates the one or more parameters [other context parameters of the thread; col. 6, lines 52 – 60].

14. As to claim 9, Azagury teaches indicating an execution control parameter to the intermediary software component [values of the context parameters are passed to the intermediate thread assigned; col. 7, lines 19 – 29]; and invoking the indicated execution control parameter on the target software component using an application programming interface (API) of the target software component [MRM 134 invokes a call on target machine 40, which uses or generates the intermediate thread using context parameters of the invoker thread passed to machine 40; col. 11, lines 1 – 11].

15. As to claim 12, Azagury teaches receiving a result at the intermediary software component from the target component in response to the invoked execution control parameter; and sending the result to the external program [return transmission may be either a result or a callback. If the return transmission is a result (not a callback), method 51 continues to a step 56, wherein the result is returned to the invoker thread; col. 6, line 62 – col. 7, line 1].

16. As to claim 13, Azagury teaches the intermediary software component sends the result [waits in a waiting step 54 for a return transmission from MRM 44; col. 6, lines 62 – 67].

17. As to claim 15, Azagury teaches the identifier of the target software component is provided by the external program [MRM 34 determines the identity of the remote thread and other context parameters of the thread; col. 6, lines 52 – 60].

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18. As to claims 16 – 24, 27, 28 and 30, these are product claims that correspond to method claims 1 – 9, 12, 13 and 15; note the rejections to claims 1 – 9, 12, 13 and 15 above, which also meet these product claims.

19. As to claims 31 – 36 and 38, these are system claims that correspond to method claims 1 – 3, 6, 7, 9 and 12; note the rejections to claims 1 – 3, 6, 7, 9 and 12 above, which also meet these system claims.

20. Claims 10, 11, 14, 25, 26, 29, 37 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Azagury and Acker further in view of U.S. Patent No. 6,609,158 to Nevarez et al. [hereinafter Nevarez,cited in previous office action].

21. As to claim 10, Azagury as modified teaches execution control parameter [col. 6, lines 52 – 60 of Azagury] and the RMI inter isolation communication protocol [col. 13, line 57 – 65 of Azagury], but does not specify translating a request from a first format to a second format.

However, Nevarez teaches a translator [a universal language adapter 226; col. 10, lines 5 – 20] for translating a request in a first format to a second format that is acceptable by the API of the target software component [core 228 is thus a mapping layer or engine which converts script commands from the universal language adapter 226 into calls to the object model adapter 230; col. 10, lines 5 - 20].

22. It would have been obvious to a person of ordinary skill in the art at the time of the invention to apply the teaching of a translator for translating a request in a first format to a second format that is acceptable by the API of the target software component as taught by Nevarez to the invention of Azagury as modified because this makes it easier for programs written according to different languages and/or different object models to communicate with each other and allows connection of disparate software components [col. 4, lines 9 - 11 and 29 - 30 of Nevarez].

23. As to claim 11, Azagury as modified teaches the intermediary software component performs the translation [col. 10, lines 5 – 20 of Nevarez].

24. As to claims 14 and 39, Azagury as modified teaches the result has a first format that is acceptable by the API of the target software component [remote provider 230 accepts calls from the object model adapter 246, uses standard network technology such as the remote bridge 248 to contact remote objects, and relays parameters and results; col. 10, lines 45 – 50 of Nevarez], the method further comprising translating the first format into a second format that is an inter isolation communication protocol before sending the result to the external program [col. 10, lines 5 – 20 of Nevarez].

25. As to claims 25, 26 and 29, these are product claims that correspond to method claims 10, 11 and 14; note the rejections to claims 10, 11 and 14 above, which also meet these product claims.

26. As to claim 37, this is a system claim that corresponds to method claim 10; note the rejection to claim 10 above, which also meet this system claim.

Conclusion

27. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent NO. 6,175,877 to Zerber teaches a system for providing communication between applets.

28. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

CONTACT INFORMATION

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on 571-272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Li B. Zhen
Examiner
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